



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| | | | | |
|---|-------------|----------------------|----------------------------|------------------|
| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/659,481 | 09/10/2003 | Douglas Dillon | PD-202114 | 3425 |
| 7590 01/25/2007 Hughes Electronics Corporation Patent Docket Administration Bldg. 1, Mail Stop A109 P.O. Box 956 El Segundo, CA 90245-0956 | | | EXAMINER NANO, SARGON N | |
| | | | ART UNIT 2157 | PAPER NUMBER |
| SHORTENED STATUTORY PERIOD OF RESPONSE | | | MAIL DATE | DELIVERY MODE |
| 3 MONTHS | | | 01/25/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | | | |
|------------------------------|------------------------|--|---------------------|--|
| Office Action Summary | Application No. | | Applicant(s) | |
| | 10/659,481 | | DILLON ET AL. | |
| | Examiner | | Art Unit | |
| | Sargon N. Nano | | 2157 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119.

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>7/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to application filed on Sep. 10, 2003. Claims 1 – 52 are pending examination.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear how the DNS information is piggybacked on the pre-fetched objects.

Claims 19 and 44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims recite the on line 2 the limitation “proxy rejects a pre-fetched **objected** from the list”. This limitation is interpreted as best understood by the examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1- 7, 9 – 20, 22 – 45, 47 – 52 are rejected under 35 U.S.C. 102(e) as being anticipated by Chatterjee et al U.S. Patent Application Publication 2001/0043600 (referred to hereafter as Chatterjee).

As to claim 1, Chatterjee teaches a method for providing a proxy service to retrieve content over a data network from a content server, the method comprising:

forwarding a request for the content over the data network towards the content server, wherein a proxy in communication with the content server determines a plurality of objects corresponding to the content based on the request, the proxy generating a list specifying the objects that are to be pre-fetched according to a criterion (see paragraphs 006, 0011, 0013 and 0014, Chatterjee discloses a remote client sends a request for a page from a server through a proxy where the request includes a list of object to be prefetched) ;

receiving the generated list in response to the request (see paragraph 0014, Chatterjee discloses receiving the list of objects);

receiving the pre-fetched objects on the list (see paragraph 0014 Chatterjee discloses receiving the prefetched requested data page) ; and selectively holding a subsequent request associated with an object specified on the list (see paragraph 006,

Chatterjee discloses all subsequent requests are directed to proxy after the list of objects is prefetched).

As to claim 2, Chatterjee teaches a method according to claim 1, wherein the proxy in the forwarding step obtains domain name service (DNS) information associated with the request, the method further comprising: receiving from the proxy the DNS information piggybacked on one of the pre-fetched objects (see paragraph 0036).

As to claim 3, Chatterjee teaches a method according to claim 1, wherein the proxy in the forwarding step receives a cookie associated with one of the pre-fetched objects and determines whether the received cookie matches that of a cookie provided in the request, the proxy not forwarding the pre-fetched object if there is no match (see paragraphs, 0048 and 0078).

As to claim 4, Chatterjee teaches a method according to claim 3, wherein the proxy in the forwarding step compares a domain name specified in the request with the cookie associated with the one pre-fetched object (see paragraph 0036).

As to claim 5, Chatterjee teaches a method according to claim 1, wherein the proxy in the forwarding step assigns a plurality of identifiers corresponding to the objects in the list, the method further comprising: forwarding a message to the proxy specifying one of the identifiers to avoid duplicate retrieval of the one corresponding object (see paragraph 0039).

As to claim 6, Chatterjee teaches a method according to claim 5, further comprising: rejecting a pre-fetched object from the list based upon one of a rejection of the list and a discrepancy of the identifiers(see paragraph 0039).

As to claim 7, Chatterjee teaches a method according to claim 1, wherein the criterion in the forwarding step includes one of object size and object type (see paragraph 0039).

As to claim 9, Chatterjee teaches a method according to claim 1, wherein the content conforms with a markup language that includes Hypertext Markup Language (HTML) (see paragraph 0017).

As to claim 10, Chatterjee teaches a method according to claim 1, wherein the data network includes a Very Small Aperture Terminal (VSAT) satellite network, and the proxy in the forwarding step resides in a VSAT terminal in communication with the content server (see paragraph 0028 and fig. 5).

As to claim 11, Chatterjee teaches a method according to claim 1, further comprising: transmitting one of the received pre-fetched objects to a browser in response to a request from the browser (see paragraph 0014).

As to claim 12, Chatterjee teaches a method according to claim 1, further comprising:
outputting a log file to maintain statistical information on the proxy service (see paragraph 0031).

As to claim 13, Chatterjee teaches a computer-readable medium bearing instructions for providing a proxy service to retrieve content over a data network from a content server, said instruction, being arranged, upon execution, to cause one or more processors to perform the method of claim 1 (see paragraphs 006, 0013 and 0014).

As to claim 14, Chatterjee teaches a network apparatus for providing a proxy service to retrieve content over a data network from a content server, the apparatus comprising:

an interface configured to forward a request for the content over the data network towards the content server, wherein an upstream proxy in communication with the content server determines a plurality of objects corresponding to the content based on the request, the upstream proxy generating a list specifying the objects that are to be pre-fetched according to a criterion (see paragraphs 006 and 0013); and

a downstream proxy configured to receive the generated list in response to the request and to receive the pre-fetched objects on the list, wherein the downstream proxy selectively holds a subsequent request associated with an object specified on the list.

As to claim 15, Chatterjee teaches an apparatus according to claim 14, wherein the upstream proxy obtains domain name service (DNS) information associated with the request and piggybacks the DNS information piggybacked onto one of the pre-fetched objects (see paragraph 0036).

As to claim 16, Chatterjee teaches an apparatus according to claim 14, wherein the upstream proxy receives a cookie associated with one of the pre-fetched objects and determines whether the received cookie matches that of a cookie provided in the

request, the upstream proxy not forwarding the pre-fetched object if there is no match(see paragraphs 0048 and 0078).

As to claim 17, an apparatus according to claim 16, wherein the upstream proxy compares a domain name specified in the request with the cookie associated with the one pre-fetched object(see paragraph 0036).

As to claim18, Chatterjee teaches an apparatus according to claim 14, wherein the upstream proxy assigns a plurality of identifiers corresponding to the objects in the list, and the downstream proxy forwards a message to the upstream proxy specifying one of the identifiers to avoid duplicate retrieval of the one corresponding object(see paragraph 0039).

As to claim19, Chatterjee teaches an apparatus according to claim 18, wherein the downstream proxy rejects a pre-fetched objected from the list based upon one of a rejection of the list and a discrepancy of the identifiers(see paragraph 0039).

As to claim 20, Chatterjee teaches an apparatus according to claim 14, wherein the criterion in the forwarding step includes one of object size and object type (see paragraph 0037).

As to claim 22, Chatterjee teaches an apparatus according to claim 14, wherein the content conforms with a markup language that includes Hypertext Markup Language (HTML) (see paragraph 0017).

As to claim 23, Chatterjee teaches an apparatus according to claim 14, wherein the data network includes a Very Small Aperture Terminal (VSAT) satellite network, and the upstream proxy resides in a VSAT terminal in communication with the content server(see paragraph 0028 and fig.5).

As to claim 24, Chatterjee teaches an apparatus according to claim 14, further comprising: another interface configured to transmit one of the received pre-fetched objects to a browser in response to a request from the browser(see paragraph 0014).

As to claim 25, Chatterjee teaches an apparatus according to claim 14, wherein the downstream proxy is configured to output a log file to maintain statistical information on the proxy service(see paragraph 0031).

As to claim 26, Chatterjee teaches a method for providing a proxy service to retrieve content over a data network from a content server, the method comprising: receiving a request for the content over the data network from a proxy;

generating a list specifying objects that are to be pre-fetched based on the request according to a criterion(see paragraph 0014);

transmitting the generated list to the proxy in response to the request; retrieving the objects in the list from the content server(see paragraph 0031); and

forwarding the objects on the list to the proxy, wherein the proxy selectively holds a subsequent request associated with an object specified on the list(see paragraphs 0006 and 0014).

As to claim 27, Chatterjee teaches a method according to claim 26, further comprising: obtaining domain name service (DNS) information associated with the

request; and forwarding the DNS information piggybacked on one of the pre-fetched objects(see paragraph 0036).

As to claim 28, Chatterjee teaches a method according to claim 26, further comprising:

receiving a cookie associated with one of the pre-fetched objects(see paragraph 0048);

determining whether the received cookie matches that of a cookie provided in the request; and blocking the forwarding of the one pre-fetched object if there is no match(see paragraphs 0039 and 0078).

As to claim 29, Chatterjee teaches a method according to claim 28, wherein the proxy in the forwarding step compares a domain name specified in the request with the cookie associated with the one pre-fetched object (see paragraph 0036).

As to claim 30, Chatterjee teaches a method according to claim 26, further comprising: assigning a plurality of identifiers corresponding to the objects in the list; and receiving a message from the proxy specifying one of the identifiers to avoid duplicate retrieval of the one corresponding object(see paragraph 0039).

As to claim 31, Chatterjee teaches a method according to claim 30, wherein the proxy in the receiving step rejects a pre-fetched objected from the list based upon one of a rejection of the list and a discrepancy of the identifiers(see paragraph 0039).

As to claim 32, Chatterjee teaches a method according to claim 26, wherein the criterion in the generating step includes one of object size and object type(see paragraph 0037).

As to claim 34, Chatterjee teaches a method according to claim 26, wherein the content conforms with a markup language that includes Hypertext Markup Language (HTML) (see paragraph 0017).

As to claim 35, Chatterjee teaches a method according to claim 26, wherein the data network includes a Very Small Aperture Terminal (VSAT) satellite network(see paragraph 0028 and fig.5).

As to claim 36, a method according to claim 26, wherein the proxy in the receiving step transmits one of the pre-fetched objects to a browser in response to a request from the browser(see paragraph 0014).

As to claim37, Chatterjee teaches a method according to claim 26, further comprising: outputting a log file to maintain statistical information on the proxy service. (see paragraph 0031) .

As to claim 38, Chatterjee teaches a computer-readable medium bearing instructions for providing a proxy service to retrieve content over a data network from a content server, said instruction, being arranged, upon execution, to cause one or more processors to perform the method of claim 26 (see paragraphs 0006, 0011 and 0014).

As to claim 39, Chatterjee teaches a network apparatus for providing a proxy service to retrieve content over a data network from a content server, the apparatus comprising:

an interface configured to receive a request for the content over the data network from a downstream proxy(see paragraphs 0006 and 0013) ; and

an upstream proxy configured to determine a plurality of objects corresponding to the content in response to the request, and to generate a list specifying the objects that are to be pre-fetched according to a criterion, wherein the generated list is transmitted to the downstream proxy in response to the request, the upstream proxy retrieving the objects in the list from the content server, the objects on the list being forwarded to the downstream proxy, wherein the downstream proxy selectively holds a subsequent request associated with an object specified on the list (see paragraphs 0006 and 0014).

As to claim 40, Chatterjee teaches an apparatus according to claim 39, wherein the upstream proxy obtains domain name service (DNS) information associated with the request, and the DNS information is piggybacked on one of the pre-fetched objects to the downstream proxy(see paragraph 0036).

As to claim 41, Chatterjee teaches an apparatus according to claim 39, wherein the upstream proxy receives a cookie associated with one of the pre-fetched objects, and determines whether the received cookie matches that of a cookie provided in the request, the forwarding of the one pre-fetched object blocked if there is no match (see paragraphs 0048 and 0078).

As to claim 42, Chatterjee teaches an apparatus according to claim 41, wherein the downstream proxy compares a domain name specified in the request with the cookie associated with the one pre-fetched object (see paragraph 0036).

As to claim 43, Chatterjee teaches an apparatus according to claim 39, wherein the upstream proxy assigns a plurality of identifiers corresponding to the objects in the list, the upstream proxy receiving a message from the downstream proxy specifying one of the identifiers to avoid duplicate retrieval of the one corresponding object (see paragraph 0039).

As to claim 44, Chatterjee teaches an apparatus according to claim 43, wherein the downstream proxy rejects a pre-fetched object from the list based upon one of a rejection of the list and a discrepancy of the identifiers (see paragraph 0039).

As to claim 45, Chatterjee teaches an apparatus according to claim 39, wherein the criterion includes one of object size and object type (see paragraph 0037).

As to claim 47, Chatterjee teaches an apparatus according to claim 39, wherein the content conforms with a markup language that includes Hypertext Markup Language (HTML) (see paragraph 0017).

As to claim 48, Chatterjee teaches an apparatus according to claim 39, wherein the data network includes a Very Small Aperture Terminal (VSAT) satellite network (see paragraph 0028 and fig. 5).

As to claim 49, Chatterjee teaches an apparatus according to claim 39, wherein the downstream proxy transmits one of the pre-fetched objects to a browser in response to a request from the browser (see paragraph 0014).

As to claim 50, Chatterjee teaches an apparatus according to claim 39, wherein the upstream proxy is configured to output a log file to maintain statistical information on the proxy service (see paragraph 0031).

As to claim 51, Chatterjee teaches a system for supporting retrieval of a web page over a data network from a web site, the system comprising:

a downstream proxy configured to receive a request message from a browser to retrieve the web page (see paragraphs 0006 and 0013); and

an upstream proxy configured to parse the web page to determine an object embedded in the web page, wherein a promise list is generated specifying the embedded object that is to be pre-fetched according to a criterion, the promise list being transmitted to the downstream proxy, wherein the upstream proxy pre-fetches the embedded object from the web site (see paragraph 0006 and 0014), wherein the upstream proxy determines whether to forward one of the pre-fetched embedded object to the downstream proxy based on a comparison of cookies associated with one of the pre-fetched objects supplied, respectively, by the browser and the web site (see paragraphs 0048 and 0078).

As to claim 52, Chatterjee teaches a system for supporting retrieval of a web page over a data network from a web site, the system comprising:

a first proxying means for receiving a request message from a browser to retrieve the web page (see paragraphs 0006 and 0013); and

an second proxying means for parsing the web page to determine an object embedded in the web page, wherein a promise list is generated specifying the

embedded object that is to be pre-fetched according to a criterion, the promise list being transmitted to the first proxying means, wherein the second proxying means pre-fetches the embedded object from the web site(see paragraph 0006 and 0014),

wherein the second proxying means determines whether to forward one of the pre-fetched embedded object to the first proxying means based on a comparison of cookies associated with one of the pre-fetched objects supplied, respectively, by the browser and the web server(see paragraphs 0048 and 0078).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 8, 21, 33 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chatterjee in view of official notice. Chatterjee teaches the invention as mentioned above. Chatterjee does not explicitly teach number of objects specified in the list in the forwarding step is limited by configurable threshold. However official notice is taken, it would have been obvious to one of the ordinary skill in the art at the time of the invention would limit the number of objects in the list as described in the instant application because doing so would limit the number of HTTP connections which make the system more efficient and robust.

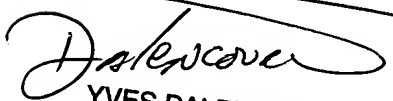
Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sargon N. Nano whose telephone number is (571) 272-4007. The examiner can normally be reached on 8 hour.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sargon Nano
Jan 20, 2007


YVES DALENCOURT
PRIMARY EXAMINER
TECHNOLOGY CENTER 2100